



ATTORNEY DOCKET NO .: EMU144CIP

SERIAL NO.: 10/056,913

MATERIAL INFORMATION STATEMENT

(Use several sheets if necessary)

APPLICANT: Harish C. Joshi, et al.

January 25, 2002

GROUP:

1614

## U.S. PATENT DOCUMENTS

FILING DATE:

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE	
u	6,376,516 B1	04/23/02	Joshi, et al.	514	3400	CEIV	FD
M	5,213,808	05/25/93	Bar-Shalom, et al.	424	47771		
(A)	5,100,669	03/31/92	Hyon, et al.	424	426	110 L 0 + 7	10.5
M	4,994,281	02/19/91	Muranishi, et al.	424	127	CENTER 16	00/2900
	4,816,462	03/28/89	Nowicky	514	274-61	OCIVICI. I	00,
	3,108,106	10/22/63	Maillard	20	283		

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSI YES	LATION NO
	3-42279	06/26/91	Japan				X
	<del>63-</del> 183540	06/26/91	Japan				Х
<del></del>	53-41415	04/14/78	Japan				X
W	₩O 83/00486	02/17/83	PCT				Х
	1191837	08/13/85	Canada				- ×
CHAH	2110533A	07/13/82	United Kingdom				

OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)

Al-Yuhya and Hassan, in K.Florey (Ed.), "Noscapine," Analytical Profiles of Drug Substances, Vol. 11 Academic Press, pp. 407-461 (1982)

Battersby, et al., "Concerning The Biosynthesis of Narcotine," Tetrahedron Lett. 11:669-673 (1965)

Empey, D.W., et al., Eur. J. Clin. Pharmacol. 16, 393-397 (1979).

Fleishchhacker, et al., Chem. Monthly 120:765-769 (1989);

Gavrieli, Y. et al., "Identification of Programmed Cell Death in Situ via Specific Labeling of Nuclear DNA Fragmentation," J. Cell Bio. 119:493-501 (1992).

Gorczyca, W. et al., "Detection of DNA Strand Breaks in Individual Apoptotic Cells by the in Situ Terminal Deoxynucleotidyl Transferase and Nick Translation Assays," Cancer Res. 53:1945-1951 (1993)

DATE CONSIDERED:

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and lost considered to be a conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next dommunication to applicant.



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U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

APPLICANT: Harish C. Joshi, et al.

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MATERIAL INFORMATION STATEMENT (Use several sheets if necessary)

A	Joshi, et al., "y-Tubulin is a centrosomal protein required for cell cycle-dependent microtybule nucleation," Nature, 356:80-83 (1992)			
M-	Ke, et al., "Noscapine inhibits tumor growth with little toxicity to normal tissues or inhibition of immune responses," <i>Cancer Immunol. Immunotherapy</i> , (2000)			
	Ke, et al., "Opium alkaloid noscapine is an antitumor agent that arrests metaphase and induces apoptosis in dividing cells," <i>Proc. Natl. Acad. Sci. USA</i> , 95:1601-1606 (1998)			
1	Kerekes and Bognar, "Synthese des Gnoscopins (DL-Narcotin)," J. Prakt. Chem. 313:923-928 (1971)			
HJ-	Landen, et al., "Noscapine Alters Microtubule Dynamics in Living Cells and Inhibits the Progression of Melanoma," pp. 1-5, figs. 1-4 (unpublished manuscript on file with Emory University School of Medicine, 2001))			
	Landen, et al., "The Microtubule Interacting Agent Noscapine for the Treatment of Glioblastoma in Immunodeficient Mice," Cancer Research Abstract Book and on AACR website (2000)			
M	Landen, et al., "Treatment of Murine Melanoma by Noscapine, a Tubulin Interacting Agent, Cancer Research Abstract Book and on AACR website (2001)			
A Company	Molnar, et al., "In vitro antiproliferative effects of tricyclic psychopharmaceutical agents and synergism with some resistance modifiers," Anticancer Res., 12(1):273-280 (1992)			
W	Moore, M.W., et al., "Introduction of Soluble Protein into the Class I Pathway of Antigen Processing and Presentation," Cell 54:777-785 (1988)			
	Perkin and Robinson, "Synthesis and Resolution of Gnoscopine," <i>J. Chem. Soc.</i> [London], 99:775-798 (1911)			
	Perry, Michael, Chemotherapy Source Book, (Williams & Wilkins 2d ed., 1997)			
EXAMINER:	wothe John DATE CONSIDERED: JANUARY 2, 2003			
	Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if nance and not considered. Include copy of this form with next communication to applicant.			





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/W/_	Peyrot, V. et al., "Mechanism of Binding of the New Antimitotic Drug MDL 27048 to the Colchicine Site of Tubulin: Equilibrium Studies," <i>Biochemistry</i> 31:11125-11132 (1992)				
	Pinko, C., "Single-chain Recombinant Human Cytomegalovirus Protease," J. Biol. Chem., 270(40):23634-23640 (1995)				
	Powers, J.C., et al., "Reaction of Porcine Pancreatic Elastase with 7-Substituted 3-Alkoxy-4-chloroisocoumarins: Design of Potent Inhibitors Using the Crystal Structure of the Complex Formed with 4-Chloro-3-ethoxy-7-guanidinoisocoumarin," Biochemistry 29:3108-3118 (1990)				
NA	Prior, S.; "Borane adducts of narcotine, hydrastine and their reduction products," <i>Arch. Pharm.</i> 316(9):737-746 (1983) (chemical Abstracts Vol. 99, 176115z (1983)				
M	Sam, J. et al., "Preparation and Properties of Some Relatives of Noscapine," J. Pharm. Sci. 57:-1755-1759 (1968)				
SW	Shono, T. et al., "New Electroreductive Synthesis of Phthalide Alkaloids," Tetrahedron Lett., 21:1351-1354 (1980)				
7	Slm, "Medicinal Plant Alkaloids," 2nd Ed. Un. Toronto Press, page 70 (1970)				
H	Uchegbu, "Science in Pharmacy Parenteral drug delivery," <i>Pharmaceutical Journal</i> , 263(7061):355-358 (1999) and www.pharmj.com/Editorial/19990904/education/parenteral2.html				
M	Uchegbu, et al., "Science in Pharmacy, Parenteral drug delivery: 1," <i>Pharmaceutical Journal</i> , 263(7060):309-318 (1999)				
**	Uhrin, et al., Collect. Czech. Chem. Communc. 54:498 (1989)				
A	Walton, M.I. et. al., "Constitutive Expression of Human Bcl-2 Modulates Nitrogen Mustard and Camptothecin Induced Apoptosis," Cancer. Res. 53:1853-1861 (1993)				
EXAMINER:	DATE CONSIDERED: DIMON 2, 2003				
EXAMMER:	Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if nance and not considered. Include copy of this form with next communication to applicant.				





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<b>A</b>	Witt, et al., "Peptide drug modifications to enhance bioavailability and blood-brain barrier permeability," <i>Peptides</i> , 22:2329-2343 (2001)				
P	Noscapine," Chemical Abstracts, page 1063 No. 6638				
A	"Offering Hope in the Treatment of Brain Cancer," http://www/gliadel.com (01/16/02) (16 pages)				
A	"The Brain Infusion Kit and Brain Infusion Kit II,"  http://www.alzet.com/products/products-sec05.html (01/16/02) (2 pages))				
	"In Vivo Pharmacology," http://www.alzet.com/products/products-sec03.html (01/16/02) (2 pages)				
W	"A General Description," http://www/alzet.com/products/products-sec01.html (01/16/02) (1 page)				
M	"DUROS®," http://www.durect.com/wt/durect/page-name/duros (01/22/02) (2 pages)				
H	"BBBD THERAPY," http://www.ohsu.edu/hosp-bbb/bbbdtherapy.html (01/22/02) 3 pages)				
	"The Microtubule Interacting Agent, Noscapine, for the Treatment of Glioblastoma and Melanoma," New Data, Department of Cell Biology, Emory University, Joshi Laboratory (undated)				
EXAMINER	DATE CONSIDERED: JANUARY 2, 1000				
	It Initial interference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if immance and not considered. Include copy of this form with next communication to applicant.				